In the Claims

The following Listing of Claims replaces all prior versions in the application:

LISTING OF CLAIMS

1. (Currently Amended) A method for analyzing a liquid sample by injecting the latter in a reaction loop coupled with illumination means and detection means, characterized in that it comprises the following steps:

- filling a reaction loop with a minimum volume of the sample to be analyzed, through a first input of a T-shaped branch and its output, this reaction loop forming a transparent pipe with which detection means are coupled,

- injecting ~~a~~ at least one fixed volume of at least one reagent into the reaction loop via a second input of the T-shaped branch,

- detecting levels of filtered light by ~~these~~ the detection means, the levels being representative of the characteristics of the sample revealed by the mixture of the sample with the reagent,

- discharging the reagents located in the reaction loop.

2. (Original) The method according to claim 1, wherein a concentration gradient is detected in the reaction loop.

3. (Original) The method according to claim 1, wherein the reaction loop is a transparent capillary or a microfluidic channel.

4. (Original) The method according to claim 1, wherein the discharge of the reagents located in the reaction loop is performed by means of the remaining sample.

5. (Original) The method according to claim 1, wherein the discharge of the reagents located in the reaction loop is performed by means of the next sample.

6. (Original) The method according to claim 1, wherein the sample flux is not interrupted, which allows continuous analysis.

7. (Original) The method according to claim 1, wherein fixed volumes of reagents are successively injected during predefined time intervals.

8. (Currently Amended) The method according to claim 7, wherein a series of pulses of reagents is produced at flow rates of the order to 10 to 1,000 [[µl]] µL[[.]] · min^{-1} followed by a waiting time.

9. (Currently Amended) The method according to claim 1, wherein linear detection is performed along the reaction loop so that it is possible to obtain a space and time plot of the reactions in the set, reaction loop [[+]] and detection means.

10. (Currently Amended) The method according to claim 1, wherein a point detection is achieved in a location of the reaction loop so that it is possible to obtain a time plot of the reactions in a location of the set: reaction loop [+] and detection means.

11. (Currently Amended) The method according to claim 10, wherein a point sensor is used, ~~capable of moving~~ and wherein the point sensor is configured to be movable along the reaction loop.

12. (Currently Amended) A system for analyzing a liquid sample comprising a reaction loop between ~~this~~ the sample introduced through an inlet linked to a first input of a T-shaped branch and at least one reagent, and detection means, characterized in that the reaction loop consists of a transparent pipe, and in that said system comprises a push-syringe linked to a second input of the T-shaped branch, the outlet of which is connected to the reaction loop allowing doses of said at least one reagent to be delivered into this loop, and illumination means with which this reaction loop may be illuminated so that the detection means record levels of light transmitted through said loop after filtering, the levels being representative of the characteristics of the sample revealed by the mixture of the sample with the reagent.

13. (Original) The system according to claim 12, wherein the transparent pipe is a transparent capillary or a microfluidic channel.

14. (Original) The system according to claim 12, wherein the detection means comprise a diode array.

15. (Original) The system according to claim 12, wherein the detection means comprise two optical fibers positioned on either side of the reaction loop.

16. (Original) The system according to claim 12, comprising a peristaltic pump allowing introduction of the sample.

17. (Original) The system according to claim 12, comprising a microvalve positioned upstream from the point of introduction of the sample into the reaction loop.

18. (Original) The system according to claim 12, wherein a T-shaped branch is respectively connected to the sample inlet, to the push-syringe and to the reaction loop.